

**TWO NEW VARIETIES OF *HEDEOMA PALMERI* (LAMIACEAE) FROM
NORTHEASTERN MEXICO**

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ABSTRACT

Two new infraspecific taxa of *Hedeoma palmeri* are described: var. *santiagoanum* B.L. Turner, var. nov., and var. *zaragozanum* B.L. Turner, var. nov. The former is largely confined to central Nuevo León (Mpio. Villa Santiago) and closely adjacent Coahuila; the latter is largely confined to southern Nuevo León (Mpio. Zaragoza) and closely adjacent Tamaulipas (Mpio. Hidalgo). Their relationships to the two other varieties of *H. palmeri* (var. *palmeri* and var. *galeanum*) are discussed, and the distribution of each in the area concerned is depicted.

KEY WORDS: Lamiaceae, *Hedeoma*, systematics, México

Hedeoma palmeri Hemsl., a member of the subgenus *Poliomenthoides* of *Hedeoma*, is typified by materials from San Luis Potosí. It was treated by Irving (1980) as a single variable species, although he called attention to populations of diversely tomentose individuals from Nuevo León which Turner (1991) subsequently described as var. *galeanum* Turner, sufficiently distinct so as to be placed in its own subspecies. Additional collections from the more montane regions of Coahuila, Nuevo León, and Tamaulipas have revealed two additional infraspecific morphogeographical taxa that appear to warrant names, and these are described herein. Both appear to be closely related to the var. *palmeri* and are positioned within the subsp. *palmeri*. A key to these four varieties is provided below, along with a map showing the distribution of each (Figure 1).

KEY TO THE SUBSPECIES AND VARIETIES OF *H. PALMERI*

1. Leaves bicolorated, the lower surfaces densely white-pilose; mostly gypsum outcrops in the vicinity of Galeana, Nuevo León (subsp. *galeanum*). var. *galeanum*
1. Leaves not bicolorated, about equally green on both surfaces, the lower surfaces moderately to sparsely hirsute (subsp. *palmeri*).....(2)

2. Calyx lobes with spreading hairs 0.4-0.6 mm long; midstem leaves mostly 1-2 cm long; San Luis Potosí, Guanajuato, Querétaro, and Hidalgo. . . var. *palmeri*
2. Calyx lobes glabrate or with hairs appressed, if somewhat spreading then the hairs 0.2 mm long or less; midstem leaves mostly 2-4 cm long; Nuevo León and closely adjacent Coahuila and Tamaulipas. (3)
3. Calyces mostly 4.5-5.5 mm long, the lobes greenish with short spreading hairs 0.1-0.2 mm long; central Nuevo León and closely adjacent Coahuila. var. *santiagoanum*
3. Calyces mostly 5.5-6.5 mm long, the lobes reddish to purplish, glabrate or nearly so (any hairs minute and appressed); southern Nuevo León (Mpio. Zaragoza) and closely adjacent Tamaulipas. var. *zaragozanum*

HEDEOMA PALMERI Hemsl. var. **SANTIAGOANUM** B.L. Turner, var. nov.
 TYPE: MEXICO. Nuevo León: Mpio. Villa de Santiago, between Las Ajuntas and Potrero Redondo, abundant in pine forest, 15 Aug 1939, C.H. Muller 2702 (HOLOTYPE: TEX!).

H. palmeri Hemsl. var. *santiagoanum* B.L. Turner, var. nov., similis *H. p. var. palmeri* sed habens folia majora et calyces parviores, hirsutos, 0.1-0.2 mm longos.

ADDITIONAL SPECIMENS EXAMINED: MEXICO. Coahuila: Mpio. Arteaga, road from Los Lirios to El Cercado, 2095 m, 29 Jul 1995, *Hinton et al.* 25446 (TEX). Nuevo León: Mpio. Villa de Santiago, Pasaje de los Osos al Pte. del Yebanis, Santiago, 19 May 1966, *Marroquin 1311* (TEX); ca. 18 km al S de Monterrey, 16 Sep 1966, *Marroquin 1383* (TEX); Cañon la Boca (100° 19' W × 25° 24' N), 1600 m, 10 Sep 1983, *Villarreal 2341* (TEX); 5 km SE of La Trinidad, in Canyon Cebolla, 2000 m, 8 Aug 1988, *Patterson 6321* (TEX); Mpio. Montemorelos, trail up Sierra Cebolla from La Trinidad, 1600 m, 6 Sep 1992, *Patterson 7163* (TEX).

This variety is distinguished from var. *palmeri* by its relatively small calyces, the lobes of which have a short spreading, pubescence, and its relatively large leaves. Occasional specimens appear to weakly approach var. *galeanum* (e.g., *Patterson 71631*), but overall the vestiture of such plants is more like that of var. *palmeri*.

HEDEOMA PALMERI Hemsl. var. **ZARAGOZANUM** B.L. Turner, var. nov.
 TYPE: MEXICO. Nuevo León: ca. 30 mi NE of Dr. Arroyo along Hwy 29 along the first pass; "open pastureland and heavily forested N-facing slopes . . . infrequent perennial, in clearings", 24° 02' N, 99° 58' W, ca. 6000 ft, 9 Sep 1971, *James Henrickson 6628* (HOLOTYPE: LL!; Isotype: MEXU).

H. palmeri Hemsl. var. *zaragozanum* B.L. Turner, var. nov., similis *H. p. var. palmeri* sed habens folia majora et lobos calycum paene glabros, rubellos.

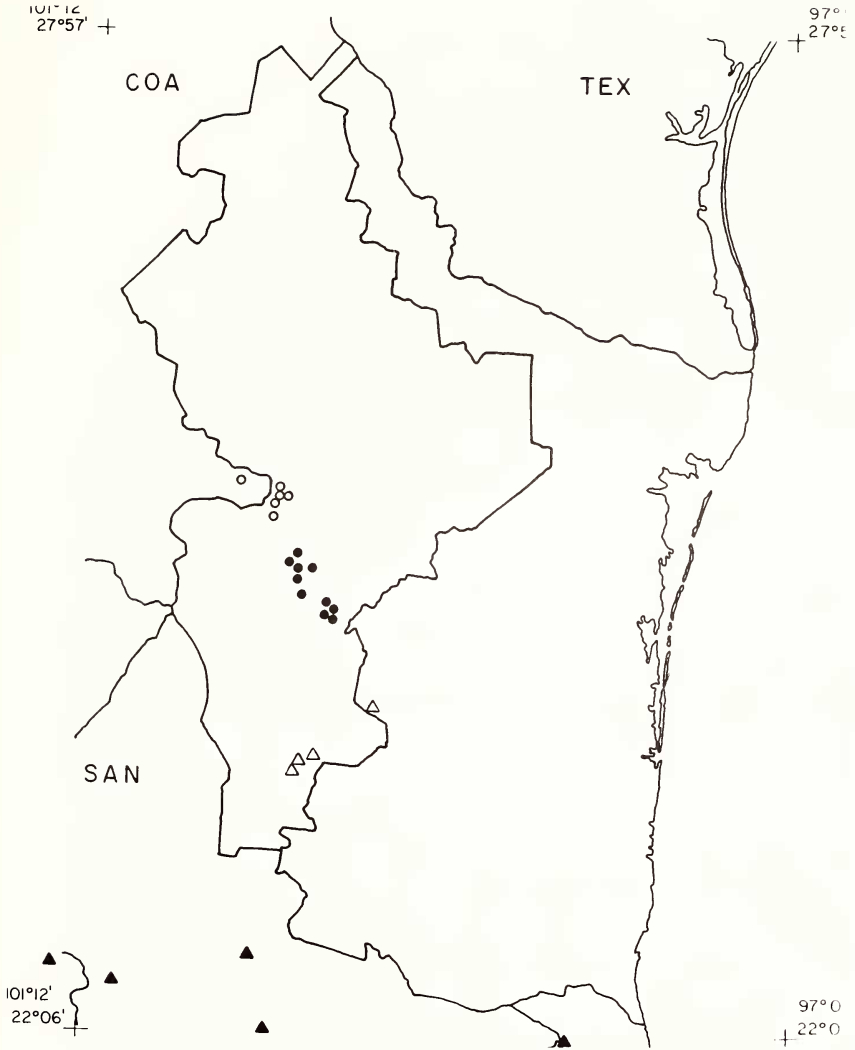


Figure 1. Distribution of varieties of *Hedeoma palmeri* in northeastern México: *var. galeanum* (closed circles), *var. palmeri* (closed triangles), *var. santiagoanum* (open circles), *var. zaragozanum* (open triangles). Localities vouchered by material at TEX.

ADDITIONAL SPECIMENS EXAMINED: MEXICO. Nuevo León: Mpio. Zaragoza, Cerro El Viejo, 2400 m, 7 Jul 1992, *Hinton et al.* 22103 (TEX); Cerro El Viejo, 2200 m, 29 Jul 1992, *Hinton et al.* 22245 (TEX); Cerro El Viejo, 2405 m, 12 Oct 1992, *Hinton et al.* 22486 (TEX); Los Potreritos, 1390 m, 2 Aug 1994, *Hinton et al.* 24541 (TEX). Tamaulipas: Mpio. Hidalgo, Los Caballos, 1750 m, 21 Sep 1994, *Hinton et al.* 24824 (TEX).

The var. *zaragozanum* is a distinctive populational element of the *Hedeoma palmeri* complex and, so far as known, is largely confined to the environs of Cerro El Viejo, mostly between 1400 to 2400 meters where it occurs in pine-oak woodlands. It is readily distinguished from var. *palmeri* by its nearly glabrate, reddish-hued calyx lobes, which characters also serve to distinguish it from var. *santiagoanum*. Future workers might wish to treat the taxon as a monotypic element of its own subspecies.

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